

REMARKS

Claims 19-20 and 23-37 were examined. Claims 19 and 31 are amended. Claims 19-20 and 23-37 remain in the Application.

The Patent Office rejects claims 19-26, 28 and 31-35 under 35 U.S.C. §102(e). The Patent Office rejects claims 26-27, 29-30 and 36-37 under 35 U.S.C. §103(a). Reconsideration of the rejected claims is respectfully requested in view of the above amendments and the following remarks.

A. 35 U.S.C. §102(e): Rejection of Claims 19-26, 28 & 31-35

The Patent Office rejects claims 19-26, 28 and 31-35 under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 2004/0026765 of Currie, et al. (Currie).

Independent claim 19 is not anticipated by Currie, because Currie does not disclose an apparatus comprising a substrate, a strain-inducing layer, and a strained layer, wherein the strain-inducing layer and the strained layer are disposed in a channel region for a transistor device and a lattice structure of the strain-inducing layer is defined by a lateral expansion or contraction of the strain-inducing layer. Support for a description of lattice structure of the strain-inducing layer may be found in the Application at, for example, page 5, paragraph 0024 and page 7, paragraphs 0031 and 0032. One way the apparatus may achieve the lattice structure is by defining junction regions by removing a portion of the strained layer and possibly a portion of strain-inducing layer that may be formed in areas designated for junction regions using a gate electrode or a gate electrode with lateral spacers as an edge and then introducing material for the junction region.

With reference to Figures 1-3, Currie describes a strain-inducing layer, a tensilely strained layer, and a compressively strained layer. With reference to Figure 3, Currie describes forming the source and drain contacts 340 by depositing a metal layer and reacting the metal layer with the channel layer and the relaxed SiGe layer 360. See col. 6, paragraph 0073, final sentence. Thus, it does not appear that Currie provides any opportunity to its strain-inducing layer to allow lateral contraction or expansion.

The description of a lattice structure defined by a lateral contraction or expansion of the strain-inducing layer is not a product by process limitation per se. It instead refers to the structure, i.e., a lattice structure, of the strain-inducing layer. It identifies the lattice structure of the strain-inducing layer in terms of a direction (a lateral expansion or contraction). In this sense, it is a structural property of the apparatus.

Claims 20, 23-26 and 28 depend from claim 19 and therefore contain all the limitations of that claim. For at least the reasons stated with respect to claim 19, claims 20, 23-26 and 28 are not anticipated by Currie.

Independent claim 31 relates to a system comprising an integrated circuit package including a substrate, a strain-inducing layer disposed on the substrate, and a strained layer disposed on the strain-inducing layer, wherein the strain-inducing layer and the strained layer are disposed in a channel region for a transistor device and the strain-inducing layer has a lattice structure defined by a lateral contraction or expansion of the strain-inducing layer. Independent claim 31 is not anticipated by Currie, because Currie does not disclose the strain-inducing layer in a channel region having a lattice structure defined by a lateral contraction or expansion of the strain-inducing layer. The discussion of Currie with respect to claim 19 is applicable to claim 31. The strain in the strained layer comprises a lateral contraction or expansion of the strain-inducing layer is not a product-by-product limitation because it describes a physical structure of the strain-inducing layer. Claims 34-35 depend from claim 31 and therefore contain all the limitations of that claim. For at least the reasons stated with respect to claim 31, claims 34-35 are not anticipated by Currie.

Applicants respectfully request that the Patent Office withdraw the rejection to claims 19-20, 23-26, 28 and 31-35 under 35 U.S.C. §102(e).

B. 35 U.S.C. §103(a): Rejection of Claims 26-27, 29-30 & 36-37

The Patent Office rejects claims 26-27, 29-30 and 36-37 under 35 U.S.C. §103(a) as obvious over Currie. Claims 26-27 and 29-30 depend from claim 1 and therefore contain all the limitations of that claim. Claims 36-37 depend from claim 31 and therefore contain all the limitations of that claim. For at least the reasons stated above with respect to their independent

claims, claims 26-27, 29-30 and 36-37 are prima facie not obvious over Currie. Further, Currie does not provide any motivation for, for example, a strain-inducing layer having a lattice structure defined by a lateral contraction or expansion of the strain-inducing layer. For the above stated reasons, Applicants respectfully request that the Patent Office withdraw the rejection to claims 26-27, 29-30 and 36-37 under 35 U.S.C. §103(a).

CONCLUSION

In view of the foregoing, it is believed that all claims now pending, namely claims 17-27, are patentably define the subject invention over the prior art of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 207 3800.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly, extension of time fees.

Respectfully submitted,

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8/31/05

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I hereby certify that this correspondence is being transmitted by facsimile on the date shown below to the United States Patent and Trademark Office.

Nedy Calderon

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